

34-36 and 47 under 35 U.S.C. §103(a) as being unpatentable over SoundTraxx DCC DSD 1996 as applied to Claim 1 above in view of Applicants' acknowledged prior art. Still further, the Patent Office rejected Claims 19, 46 and 50 under 35 U.S.C. §103(a) as being unpatentable over SoundTraxx DCC DSD 1996 as applied to Claim 1 above in view of Richard H. Lord's NMRA Digital Command System Sound Unit circuit diagram.

By the present Amendment, Applicants submit that the application is in condition for allowance because 1) Applicants' invention predates SoundTraxx DCC DSD 1996; 2) the claims of Applicants' invention are patentably distinct from SoundTraxx DCC DSD 1996 (hereinafter "SoundTraxx"); and 3) the additional reasons that follow.

1) Applicants' invention predates SoundTraxx

As to the rejection of Claims 1-4, 7-10, 12-16, 21-32, 37-45 and 49 under 35 U.S.C. § 102(a) and Claims 5-6, 11, 17-20, 33-36, 46-48, and 50 under 35 U.S.C. § 103(a), Applicants submit herewith an Affidavit under 37 CFR § 1.131 to overcome SoundTraxx. On May 5, 1997, Applicants filed application Serial No.: 08/851,200 as a Continuation-In-Part application (CIP) of application Serial No.: 08/289,257 filed August 11, 1994 (abandoned). The printed publication, the 1996 SoundTraxx DCC Digital Sound Decoder dated, February 1, 1996 was published in a review by Debbie Ames in the Model Railroader magazine for October 1996. The publication date,

October 1996, is less than one year prior to the date on which the CIP was filed. The attached Affidavit under 37 CFR §1.131 includes facts showing a completion of the invention in this country before the publication date of SoundTraxx. Accordingly, SoundTraxx is not a valid reference for a rejection of the claims of the present invention under §102(a) or §103. Notice to that effect is requested.

In addition, Applicants submit U.S. Serial No. 08/289,257, (hereinafter the '257 application) predates SoundTraxx. The '257 application predates SoundTraxx because SoundTraxx was NOT known or used by others in this country or patented or described in a printed publication in this or a foreign country prior to the present invention. Again, this application is a reissue application of a continuation-in-part application, filed May 5, 1997, of the '257 patent application, filed August 11, 1994.

More specifically, the Patent Office rejected Claims 1-4, 7-10, 12-16, 21-32, 37-45 and 49 under U.S.C. §102(a) as being anticipated by SoundTraxx. The Patent Office alleges in the Office Action dated June 18, 2001, that SoundTraxx includes:

digital control by a micro-controller, using bi-polar digital signal packets, of propulsion, sound effects, and special effects, for model trains having two or more rails (inherent in the "NMRA DCC standards and recommended practices"... DSD "integrates a full featured digital sound system, sophisticated lighting effects and a DCC decoder into a single, miniature, electronic module" which is inside your locomotive")

(See first paragraph on page 4 of the Office Action dated June 18, 2001.)

Further, the Patent Office alleges in the Office Action dated November 28, 2001:

the '257 application does not teach nor fairly suggest digital control **using bipolar digital signal packets** of propulsion, sound effects, and special effects for model trains. No such control packets are mentioned, and, at best, only sound effects and generic 'activators' are found in the cited application text.... Neither do these lines teach nor fairly suggest **an integrated sound, motor and special effects controller** controlled by said packets.

(See paragraph 3 of the Office Action dated November 28, 2001.)

Applicants submit that, if "digital control by a micro-controller, using bi-polar digital signal packets, of propulsion, sound effects, and special effects, for model trains having two or more rails" is "inherent in the "NMRA DCC standards and recommended practices" as applied to the 1996 SoundTraxx DCC Digital Sound Decoder publication, then the same is true as applied to the '257 application and to the present invention. Applicants specifically reference the attached NMRA COMMUNICATIONS STANDARD FOR DIGITAL COMMAND CONTROL, approved August 1994 wherein Extended Packet Format Recommended Practice is referenced on page 2, section B, "complex packet formats that support different types of decoders, additional functions, addresses and speeds are provided in the Extended Packet Format Recommended Practice." Further, as to the

Patent Office's contention that "the '257 application does not teach nor fairly suggest digital control **using bipolar digital signal packets**. . . No such control packets are specifically mentioned. . . ." Applicants submit that no such control packets are specifically mentioned in SoundTraxx. Accordingly, SoundTraxx is not relevant as prior art, and the rejections based on SoundTraxx should be withdrawn.

Further, the Patent Office alleges in the Office Action dated June 18, 2001, that SoundTraxx includes:

sound memory storing a plurality of sound effect samples at predetermined addresses (listed steam and Diesel sound effects stored on inherent addressable chip(s));

containing multiple sounds that emulate a model locomotive at various speeds and work loads (listed sound effects under "Stunning Steam Sound!" and "Dynamite Diesel Sound!");

(See second and third paragraphs, page 4, of the Office Action dated June 18, 2001.)

Applicants submit the '257 application discloses sound memory storing a plurality of sound effect samples at predetermined addresses and discloses multiple sounds that emulate a model locomotive at various speeds and work loads. Specifically, the '257 application discloses "at least one characteristic sound." (See paragraph 4 on page 2 of the '257 application.) More specifically, the '257 application discloses a "processing chip 14 is provided with memory for storage following recording of various

sounds recorded thereon or for subsequent reproduction of the recorded sounds." (See the second paragraph, page eight, of the '257 application.) Further, the '257 application discloses:

It is, of course, generally known to generate simulated sounds in response to external stimuli, such as motion. One common industry in which sound production is often simulated is the model railroad industry.... These sounds are typically generated in connection with a particular car of a railroad to enhance the interest and realism of the model railroad.

(See the second paragraph, page one, of the '257 application.)

Accordingly, contrary to the assertions made by the Patent Office, the '257 application discloses sound memory storing a plurality of sound effect samples at predetermined addresses and discloses containing multiple sounds that emulate a model locomotive at various speeds and work loads.

Still further, the Patent Office alleges in the Office Action dated June 18, 2001, that SoundTraxx includes:

an integrated sound, motor and special effects controller controlled by bi-polar signal packets, the motor and special effects controller reproducing the stored sounds contained in the model train (again, DSD "integrates a full featured digital sound system, sophisticated lighting effects and a DCC decoder into a single, miniature, electronic module" which is "inside your locomotive", the special effects include the listed "Steam Lighting Effects" and "Diesel Lighting Effects" and DSD100 Figure).

(See fourth paragraph, page 4, of Office Action dated June 18, 2001.)

Further, the Patent Office alleges that the following cited lines of the '257 application do not fairly suggest an integrated sound, motor and special controller controlled by the packets.

the electrical components hereinafter described are typically enclosed within a housing such that the model train car 1 encloses the components and provides a decorative appearance in its ordinary usage. . . One of these components is a processing chip. . . The processing chip is provided with memory for storage following recording of various sounds recorded thereon or for subsequent reproduction of the recorded sounds. Connected to the processing chip 14 is an audio amplifier 16 and a sensor 18. . . . Of course, other sensors or activators may be implemented. . . . The processing chip 14 also includes a microphone 38... external to or built into the chip 14.

(See page 8, lines 5-15, of the '257 application.)

Further, in the Office Action, the Patent Office stated that lines 2-5 of page 10 of the '257 application do not specifically mention predetermined addresses at which a plurality of sound effect samples are stored for playback. Applicants submit the '257 application discloses "the sound module can be partitioned into a multiple number of segments such that **multiple sounds are addressable from a single storage chip.** Figures 8 and 10 illustrate the sound chip partitioned into two segments." (Emphasis added.) (See third paragraph, page 14 of the '257 application.) Applicants submit that to partition a chip, addresses must be present. Thus, the partitioning of the sound chip inherently includes predetermined addresses.